RECEIVED 2/1/02

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envisore addressed to: Assistant Commissioner for Patents, Washington, D.C., 20231, on:

TECH CENTER 1600/2900

Date: 1/-26-01

DOCKET NO.: 58600-8197.US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

Harbury, P. et al.

SERIAL NO.: 09/421,422

FILED: 10/19/99

FOR: DNA-TEMPLATED COMBINATORIAL

LIBRARY CHEMISTRY

EXAMINER:

Koroma, B.

ART UNIT:

1627

AMENDMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

This amendment is in response to the Office Action mailed May 25, 2001 in the aboveidentified application.

In the Claims:

Please amend claims 1 as follows:

- 1. (Amended) A method of tag-directed synthesis of a plurality of compounds, comprising:
- (a) forming a first group of subsets of nucleic acid tags, where the nucleic acid tags in each subset each has a selected one of a plurality of different first hybridization sequences, a mixture of different second hybridization sequences, and a chemical reaction site,
- (b) reacting the chemical reaction sites in each of the subsets formed in (a) with a first selected reagent, thereby to form a reagent-specific compound intermediate on the associated sequence in each subset,
- (c) forming a second group of subsets of the reacted nucleic acid tags, where the tags in each subset each have a selected one of a plurality of different second hybridization sequences,

